

ANALYTICAL REPORT

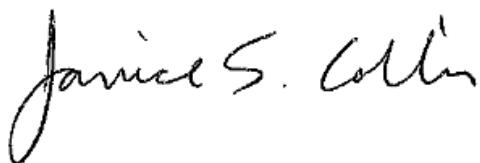
Job Number: 280-51248-2

Job Description: 995|Waimanalo Gulch LF

For:

Waste Management
Waimanalo Gulch Landfill
92-460 Farrington Highway
Kapolei, HI 96707

Attention: Mr. Justin Lottig



Approved for release.
Janice S Collins
Project Management Assistant I
1/30/2014 11:04 AM

Designee for
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01/30/2014

cc: Mr. Mark Hofferbert
Ms. Margie Thach

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Table of Contents

Cover Title Page	1
Report Narrative	3
Executive Summary	5
Method Summary	6
Method / Analyst Summary	7
Sample Summary	8
Sample Results	9
Sample Datasheets	10
Data Qualifiers	15
QC Results	16
Qc Association Summary	17
Surrogate Recovery Report	22
Qc Reports	23
Laboratory Chronicle	48
Subcontracted Data	52
Client Chain of Custody	67
Sample Receipt Checklist	69

CASE NARRATIVE

Client: Waste Management

Project: 995|Waimanalo Gulch LF

Report Number: 280-51248-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The sample was received on 01/16/2014; the sample arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.4° C, 1.3° C and 2.4° C.

Holding Times

All holding times were met.

Method Blanks

All Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Sample DB01W was selected to fulfill the laboratory batch quality control requirements for Method 365.1. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Phosphorus above the upper control limit indicating the possible presence of a matrix interference.

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited MS and MSD recoveries outside control limits for Total Silver Method 200.7 and Ammonia Method 350.1. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or the relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Total Iron Method 200.7 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The method required MS/MSD could not be performed for Method 625 and Method 1664A due to insufficient sample volume, however, LCS/LCSD pairs were analyzed to demonstrate method precision and accuracy.

All other MS and MSD samples were within established control limits.

Metals

The Method 245.1 continuing calibration verification (CCV) for Total Mercury recovered above the upper control limit. The samples associated with this CCV were not detected above the reporting limit for Total Mercury; therefore, the data have been reported.

General Comments

For samples requiring analysis at a dilution, the dilution factor has been multiplied by the Method Detection Limit (MDL) for each analyte and evaluated versus the project-specific reporting limit (PSRL). If the obtained value is below the PSRL, then the PSRL is preserved as the reporting limit for the diluted result, otherwise, the obtained value becomes the reporting limit. This is done in order to maintain the PSRL to meet permit requirements at the request of the client and to report the lowest possible RL for each analyte.

The analysis for Biochemical Oxygen Demand (BOD) was performed by TestAmerica Honolulu. Their address and phone number are:
TestAmerica Honolulu
1946 Young Street
Suite 400A
Honolulu, HI 96826
Phone: 808.486.5227

The analysis for Hexavalent Chromium was performed at TestAmerica's Irvine facility.
TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614
Phone: 949.261.1022

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-51248-2

Lab Sample ID Analyte	Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-51248-2	DB01W					
Mercury		0.000030	J ^	0.00020	mg/L	245.1
Field pH		7.81		SU		Field Sampling
Ammonia		0.036	J	0.10	mg/L	350.1
Nitrogen, Kjeldahl		0.75		0.50	mg/L	351.2
Nitrate Nitrite as N		3.2		0.10	mg/L	353.2
Phosphorus, Total		0.28		0.050	mg/L	365.1
Chemical Oxygen Demand		21		20	mg/L	410.4
Total Suspended Solids		36		4.0	mg/L	SM 2540D
Nitrogen, Total		4.0		0.10	mg/L	Total Nitrogen
<i>Dissolved</i>						
Chromium, hexavalent		1.3		1.0	ug/L	218.6
<i>Total Recoverable</i>						
Iron		2.7		0.10	mg/L	200.7 Rev 4.4
Zinc		0.021		0.020	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management

Job Number: 280-51248-2

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	40CFR136A 625	
Liquid-Liquid Extraction	TAL DEN		40CFR136A 625
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Mercury (CVAA)	TAL DEN	EPA 245.1	
Preparation, Mercury	TAL DEN		EPA 245.1
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1	
Nitrogen, Total Kjeldahl	TAL DEN	MCAWW 351.2	
Nitrogen, Total Kjeldahl	TAL DEN		MCAWW 351.2
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Phosphorus, Total	TAL DEN	EPA 365.1	
Phosphorus, Total	TAL DEN		MCAWW 365.2/365.3/365
COD	TAL DEN	MCAWW 410.4	
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
Nitrogen, Total	TAL DEN	EPA Total Nitrogen	
Field Sampling	TAL DEN	EPA Field Sampling	
General Sub Contract Method	TAL HON	Subcontract	
Chromium, Hexavalent (Ion Chromatography)	TAL IRV	EPA 218.6	
Sample Filtration, Field			FIELD_FLTRD

Lab References:

TAL DEN = TestAmerica Denver

TAL HON = TestAmerica Honolulu

TAL IRV = TestAmerica Irvine

Method References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-51248-2

Method	Analyst	Analyst ID
40CFR136A 625	Hoffman, Michael G	MGH
EPA 200.7 Rev 4.4	Harre, John K	JKH
EPA 245.1	Rhoades, Chris R	CRR
EPA Field Sampling	Field, Sampler	FS
1664A 1664A	Benson, Alex F	AFB
MCAWW 350.1	Graham, Shane M	SMG
MCAWW 351.2	Graham, Shane M	SMG
MCAWW 353.2	Ayala, Delaina V	DVA
EPA 365.1	Schwemin, Andrew J	AJS
MCAWW 410.4	Jewell, Connie C	CCJ
SM SM 2540D	Janssen, Elizabeth L	ELJ
EPA Total Nitrogen	Sullivan, Roxanne K	RKS
EPA 218.6	Pham, Quynh D	QPD

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-51248-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-51248-2	DB01W	Water	01/14/2014 0945	01/16/2014 0920

SAMPLE RESULTS

Analytical Data

Client: Waste Management

Job Number: 280-51248-2

Client Sample ID: **DB01W**Lab Sample ID: 280-51248-2
Client Matrix: WaterDate Sampled: 01/14/2014 0945
Date Received: 01/16/2014 0920**625 Semivolatile Organic Compounds (GC/MS)**

Analysis Method:	625	Analysis Batch:	280-209708	Instrument ID:	SMS_Y
Prep Method:	625	Prep Batch:	280-209177	Lab File ID:	Y8790.D
Dilution:	1.0			Initial Weight/Volume:	1039.2 mL
Analysis Date:	01/23/2014 2127			Final Weight/Volume:	1000 uL
Prep Date:	01/20/2014 1043			Injection Volume:	0.5 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Alpha-Terpineol	ND		0.0019	0.010
Benzoic acid	ND		0.0096	0.050
p-Cresol	ND		0.00024	0.010
Pentachlorophenol	ND		0.019	0.060
Phenol	ND		0.0019	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	71		50 - 120
2-Fluorobiphenyl	81		36 - 120
2-Fluorophenol	73		30 - 120
Nitrobenzene-d5	74		45 - 120
Phenol-d5	74		36 - 120
Terphenyl-d14	42		41 - 120

Analytical Data

Client: Waste Management

Job Number: 280-51248-2

Client Sample ID: **DB01W**

Lab Sample ID: 280-51248-2

Date Sampled: 01/14/2014 0945

Client Matrix: Water

Date Received: 01/16/2014 0920

218.6 Chromium, Hexavalent (Ion Chromatography)-Dissolved

Analysis Method:	218.6	Analysis Batch:	440-157224	Instrument ID:	IC-20
	N/A	Prep Batch:	N/A	Lab File ID:	Info 2_TAIIRVIC20_Hexa
Dilution:	1.0			Initial Weight/Volume:	10 mL
Analysis Date:	01/21/2014 1854			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	1000 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chromium, hexavalent	1.3		0.25	1.0

Analytical Data

Client: Waste Management

Job Number: 280-51248-2

Client Sample ID: DB01WLab Sample ID: 280-51248-2
Client Matrix: WaterDate Sampled: 01/14/2014 0945
Date Received: 01/16/2014 0920**200.7 Rev 4.4 Metals (ICP)-Total Recoverable**

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-209348	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-209053	Lab File ID:	25A6012014.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/20/2014 2236			Final Weight/Volume:	50 mL
Prep Date:	01/20/2014 1230				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Iron	2.7		0.022	0.10
Lead	ND		0.0026	0.0090
Selenium	ND		0.0049	0.015
Zinc	0.021		0.0045	0.020
Silver	ND		0.00093	0.010

245.1 Mercury (CVAA)

Analysis Method:	245.1	Analysis Batch:	280-209898	Instrument ID:	MT_034
Prep Method:	245.1	Prep Batch:	280-209679	Lab File ID:	140123tab2.txt
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	01/23/2014 1508			Final Weight/Volume:	30 mL
Prep Date:	01/23/2014 1000				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.000030	J ^	0.000027	0.00020

Analytical Data

Client: Waste Management

Job Number: 280-51248-2

General Chemistry**Client Sample ID:** DB01W

Lab Sample ID: 280-51248-2

Date Sampled: 01/14/2014 0945

Client Matrix: Water

Date Received: 01/16/2014 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM	ND		mg/L	1.6	5.0	1.0	1664A
	Analysis Batch: 280-209096		Analysis Date: 01/18/2014 1332				
	Prep Batch: 280-209083		Prep Date: 01/18/2014 0920				
Ammonia	0.036	J	mg/L	0.022	0.10	1.0	350.1
	Analysis Batch: 280-209837		Analysis Date: 01/23/2014 1644				
Nitrogen, Kjeldahl	0.75		mg/L	0.18	0.50	1.0	351.2
	Analysis Batch: 280-209798		Analysis Date: 01/23/2014 1316				
	Prep Batch: 280-209604		Prep Date: 01/22/2014 1509				
Nitrate Nitrite as N	3.2		mg/L	0.019	0.10	1.0	353.2
	Analysis Batch: 280-209801		Analysis Date: 01/22/2014 1931				
Phosphorus, Total	0.28		mg/L	0.0050	0.050	1.0	365.1
	Analysis Batch: 280-210630		Analysis Date: 01/29/2014 2217				
	Prep Batch: 280-210397		Prep Date: 01/28/2014 1700				
Chemical Oxygen Demand	21		mg/L	4.1	20	1.0	410.4
	Analysis Batch: 280-209703		Analysis Date: 01/23/2014 0849				
Total Suspended Solids	36		mg/L	1.1	4.0	1.0	SM 2540D
	Analysis Batch: 280-209264		Analysis Date: 01/20/2014 1747				
Nitrogen, Total	4.0		mg/L	0.042	0.10	1.0	Total Nitrogen
	Analysis Batch: 280-210108		Analysis Date: 01/27/2014 0824				

Analytical Data

Client: Waste Management

Job Number: 280-51248-2

Field Service / Mobile Lab**Client Sample ID:** DB01W

Lab Sample ID: 280-51248-2

Date Sampled: 01/14/2014 0945

Client Matrix: Water

Date Received: 01/16/2014 0920

Analyte	Result	Qual	Units	Dil	Analysis		Date Analyzed
					Method	Batch	Date Prepared
Field pH	7.81		SU	1.0	Field Sampling	280-209216	01/14/2014 0945

DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-51248-2

Lab Section	Qualifier	Description
GC/MS Semi VOA	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals	^	Instrument related QC exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-209177					
LCS 280-209177/2-A	Lab Control Sample	T	Water	625	
LCSD 280-209177/3-A	Lab Control Sample Duplicate	T	Water	625	
MB 280-209177/1-A	Method Blank	T	Water	625	
280-51248-2	DB01W	T	Water	625	
Analysis Batch: 280-209708					
LCS 280-209177/2-A	Lab Control Sample	T	Water	625	280-209177
LCSD 280-209177/3-A	Lab Control Sample Duplicate	T	Water	625	280-209177
MB 280-209177/1-A	Method Blank	T	Water	625	280-209177
280-51248-2	DB01W	T	Water	625	280-209177

Report Basis

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-209053					
LCS 280-209053/2-A	Lab Control Sample	R	Water	200.7	
MB 280-209053/1-A	Method Blank	R	Water	200.7	
280-51248-2	DB01W	R	Water	200.7	
280-51270-D-1-B MS	Matrix Spike	R	Water	200.7	
280-51270-D-1-C MSD	Matrix Spike Duplicate	R	Water	200.7	
Analysis Batch:280-209348					
LCS 280-209053/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-209053
MB 280-209053/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-209053
280-51248-2	DB01W	R	Water	200.7 Rev 4.4	280-209053
280-51270-D-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-209053
280-51270-D-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-209053
Prep Batch: 280-209679					
LCS 280-209679/2-A	Lab Control Sample	T	Water	245.1	
MB 280-209679/1-A	Method Blank	T	Water	245.1	
280-51248-2	DB01W	T	Water	245.1	
280-51392-B-1-K MS	Matrix Spike	T	Water	245.1	
280-51392-B-1-L MSD	Matrix Spike Duplicate	T	Water	245.1	
Analysis Batch:280-209898					
LCS 280-209679/2-A	Lab Control Sample	T	Water	245.1	280-209679
MB 280-209679/1-A	Method Blank	T	Water	245.1	280-209679
280-51248-2	DB01W	T	Water	245.1	280-209679
280-51392-B-1-K MS	Matrix Spike	T	Water	245.1	280-209679
280-51392-B-1-L MSD	Matrix Spike Duplicate	T	Water	245.1	280-209679

Report Basis

R = Total Recoverable

T = Total

Field Service / Mobile Lab

Analysis Batch:280-209216

280-51248-2	DB01W	T	Water	Field Sampling
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Report Basis

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-209083					
LCS 280-209083/2-A	Lab Control Sample	T	Water	1664A	
LCSD 280-209083/3-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-209083/1-A	Method Blank	T	Water	1664A	
280-51248-2	DB01W	T	Water	1664A	
Analysis Batch:280-209096					
LCS 280-209083/2-A	Lab Control Sample	T	Water	1664A	280-209083
LCSD 280-209083/3-A	Lab Control Sample Duplicate	T	Water	1664A	280-209083
MB 280-209083/1-A	Method Blank	T	Water	1664A	280-209083
280-51248-2	DB01W	T	Water	1664A	280-209083
Analysis Batch:280-209264					
LCS 280-209264/2	Lab Control Sample	T	Water	SM 2540D	
LCSD 280-209264/3	Lab Control Sample Duplicate	T	Water	SM 2540D	
MB 280-209264/1	Method Blank	T	Water	SM 2540D	
280-51244-A-2 DU	Duplicate	T	Water	SM 2540D	
280-51248-2	DB01W	T	Water	SM 2540D	
Prep Batch: 280-209604					
LCS 280-209604/2-A	Lab Control Sample	T	Water	351.2	
LCSD 280-209604/3-A	Lab Control Sample Duplicate	T	Water	351.2	
MB 280-209604/1-A	Method Blank	T	Water	351.2	
280-51248-2	DB01W	T	Water	351.2	
280-51248-2MS	Matrix Spike	T	Water	351.2	
280-51248-2MSD	Matrix Spike Duplicate	T	Water	351.2	
Analysis Batch:280-209703					
LCS 280-209703/3	Lab Control Sample	T	Water	410.4	
LCSD 280-209703/4	Lab Control Sample Duplicate	T	Water	410.4	
MB 280-209703/5	Method Blank	T	Water	410.4	
280-51205-A-1 MS	Matrix Spike	T	Water	410.4	
280-51205-A-1 MSD	Matrix Spike Duplicate	T	Water	410.4	
280-51248-2	DB01W	T	Water	410.4	
Analysis Batch:280-209798					
LCS 280-209604/2-A	Lab Control Sample	T	Water	351.2	280-209604
LCSD 280-209604/3-A	Lab Control Sample Duplicate	T	Water	351.2	280-209604
MB 280-209604/1-A	Method Blank	T	Water	351.2	280-209604
280-51248-2	DB01W	T	Water	351.2	280-209604
280-51248-2MS	Matrix Spike	T	Water	351.2	280-209604
280-51248-2MSD	Matrix Spike Duplicate	T	Water	351.2	280-209604

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-209801					
LCS 280-209801/29	Lab Control Sample	T	Water	353.2	
LCSD 280-209801/30	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-209801/28	Method Blank	T	Water	353.2	
280-51248-2	DB01W	T	Water	353.2	
280-51248-2MS	Matrix Spike	T	Water	353.2	
280-51248-2MSD	Matrix Spike Duplicate	T	Water	353.2	
Analysis Batch:280-209837					
LCS 280-209837/58	Lab Control Sample	T	Water	350.1	
LCSD 280-209837/59	Lab Control Sample Duplicate	T	Water	350.1	
MB 280-209837/60	Method Blank	T	Water	350.1	
280-51186-B-2 MS	Matrix Spike	T	Water	350.1	
280-51186-B-2 MSD	Matrix Spike Duplicate	T	Water	350.1	
280-51248-2	DB01W	T	Water	350.1	
Analysis Batch:280-210108					
MB 280-210108/1	Method Blank	T	Water	Total Nitrogen	
280-51248-2	DB01W	T	Water	Total Nitrogen	
Prep Batch: 280-210397					
LCS 280-210397/3-A	Lab Control Sample	T	Water	365.2/365.3/365	
LCSD 280-210397/4-A	Lab Control Sample Duplicate	T	Water	365.2/365.3/365	
MB 280-210397/5-A	Method Blank	T	Water	365.2/365.3/365	
280-51248-2	DB01W	T	Water	365.2/365.3/365	
280-51248-2MS	Matrix Spike	T	Water	365.2/365.3/365	
280-51248-2MSD	Matrix Spike Duplicate	T	Water	365.2/365.3/365	
Analysis Batch:280-210630					
LCS 280-210397/3-A	Lab Control Sample	T	Water	365.1	280-210397
LCSD 280-210397/4-A	Lab Control Sample Duplicate	T	Water	365.1	280-210397
MB 280-210397/5-A	Method Blank	T	Water	365.1	280-210397
280-51248-2	DB01W	T	Water	365.1	280-210397
280-51248-2MS	Matrix Spike	T	Water	365.1	280-210397
280-51248-2MSD	Matrix Spike Duplicate	T	Water	365.1	280-210397

Report Basis

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Analysis Batch:440-157224					
LCS 440-157224/2	Lab Control Sample	T	Water	218.6	
MB 440-157224/3	Method Blank	T	Water	218.6	
280-51248-2	DB01W	D	Water	218.6	
440-67999-H-2 MS	Matrix Spike	D	Water	218.6	
440-67999-H-2 MSD	Matrix Spike Duplicate	D	Water	218.6	

Report Basis

D = Dissolved

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Surrogate Recovery Report**625 Semivolatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
280-51248-2	DB01W	71	81	73	74	74	42
MB 280-209177/1-A		72	88	81	79	83	101
LCS 280-209177/2-A		86	90	89	84	90	100
LCSD 280-209177/3-A		87	91	89	84	88	98

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	50-120
FBP = 2-Fluorobiphenyl	36-120
2FP = 2-Fluorophenol	30-120
NBZ = Nitrobenzene-d5	45-120
PHL = Phenol-d5	36-120
TPH = Terphenyl-d14	41-120

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209177**Method: 625****Preparation: 625**

Lab Sample ID:	MB 280-209177/1-A	Analysis Batch:	280-209708	Instrument ID:	SMS_Y
Client Matrix:	Water	Prep Batch:	280-209177	Lab File ID:	Y8788.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/23/2014 2032	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	01/20/2014 1043			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Alpha-Terpineol	ND		0.0020	0.010
Benzoic acid	ND		0.010	0.050
p-Cresol	ND		0.00025	0.010
Pentachlorophenol	ND		0.020	0.060
Phenol	ND		0.0020	0.010
Surrogate	% Rec		Acceptance Limits	
2,4,6-Tribromophenol	72		50 - 120	
2-Fluorobiphenyl	88		36 - 120	
2-Fluorophenol	81		30 - 120	
Nitrobenzene-d5	79		45 - 120	
Phenol-d5	83		36 - 120	
Terphenyl-d14	101		41 - 120	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-209177**

**Method: 625
Preparation: 625**

LCS Lab Sample ID:	LCS 280-209177/2-A	Analysis Batch:	280-209708	Instrument ID:	SMS_Y
Client Matrix:	Water	Prep Batch:	280-209177	Lab File ID:	Y8769.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/23/2014 1141	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	01/20/2014 1043			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209177/3-A	Analysis Batch:	280-209708	Instrument ID:	SMS_Y
Client Matrix:	Water	Prep Batch:	280-209177	Lab File ID:	Y8770.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/23/2014 1209	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	01/20/2014 1043			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
1,2,4-Trichlorobenzene	69	67	44 - 120	3	35	
1,2-Dichlorobenzene	73	69	32 - 120	7	42	
1,3-Dichlorobenzene	69	66	23 - 120	5	47	
1,4-Dichlorobenzene	70	67	24 - 120	4	49	
2,2'-Oxybis(1-chloropropane)	73	72	37 - 120	0	30	
2,4,6-Trichlorophenol	88	90	51 - 120	3	30	
2,4-Dichlorophenol	87	89	46 - 120	2	30	
2,4-Dimethylphenol	67	68	44 - 119	1	35	
2,4-Dinitrophenol	85	83	20 - 121	1	61	
2,4-Dinitrotoluene	95	96	57 - 120	0	35	
2,6-Dinitrotoluene	94	91	56 - 120	3	30	
2-Chloronaphthalene	79	78	60 - 118	1	30	
2-Chlorophenol	90	90	34 - 120	0	30	
2-Methylphenol	84	83	38 - 120	2	35	
2-Nitrophenol	92	91	47 - 120	1	30	
3,3'-Dichlorobenzidine	40	44	18 - 120	9	50	J
4,6-Dinitro-2-methylphenol	100	96	40 - 120	4	55	
4-Bromophenyl phenyl ether	87	83	53 - 120	5	34	
4-Chloro-3-methylphenol	89	90	57 - 120	2	30	
4-Chlorophenyl phenyl ether	84	84	51 - 120	0	30	
4-Nitrophenol	90	88	53 - 120	3	42	
Acenaphthene	86	85	47 - 120	1	30	
Acenaphthylene	84	82	33 - 120	1	30	
Anthracene	88	85	52 - 120	3	30	
Benzidine	30	37	10 - 218	19	50	
Benzo[a]anthracene	91	89	54 - 120	2	30	
Benzo[a]pyrene	86	85	39 - 120	2	73	
Benzo[b]fluoranthene	94	91	51 - 120	3	90	
Benzo[g,h,i]perylene	89	85	48 - 120	4	64	
Benzo[k]fluoranthene	93	89	49 - 120	4	50	
Bis(2-chloroethoxy)methane	86	88	50 - 120	2	30	
Bis(2-chloroethyl)ether	91	85	35 - 120	7	30	
Bis(2-ethylhexyl) phthalate	94	93	56 - 120	1	30	
Butyl benzyl phthalate	94	91	53 - 120	3	30	
Chrysene	92	89	51 - 120	3	30	
Dibenz(a,h)anthracene	87	89	45 - 120	1	78	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-209177**

**Method: 625
Preparation: 625**

LCS Lab Sample ID:	LCS 280-209177/2-A	Analysis Batch:	280-209708	Instrument ID:	SMS_Y
Client Matrix:	Water	Prep Batch:	280-209177	Lab File ID:	Y8769.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/23/2014 1141	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	01/20/2014 1043			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209177/3-A	Analysis Batch:	280-209708	Instrument ID:	SMS_Y
Client Matrix:	Water	Prep Batch:	280-209177	Lab File ID:	Y8770.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/23/2014 1209	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	01/20/2014 1043			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Diethyl phthalate	92	93	59 - 114	1	30	
Dimethyl phthalate	93	92	58 - 112	0	30	
Di-n-butyl phthalate	93	90	57 - 118	3	30	
Di-n-octyl phthalate	95	92	56 - 120	3	30	
Fluoranthene	91	89	58 - 120	3	30	
Fluorene	87	87	59 - 120	0	30	
Hexachlorobenzene	82	79	53 - 120	4	30	
Hexachlorobutadiene	64	62	27 - 116	3	41	
Hexachlorocyclopentadiene	14	16	10 - 120	13	82	J
Hexachloroethane	67	63	40 - 113	6	52	
Indeno[1,2,3-cd]pyrene	91	88	50 - 120	3	73	
Isophorone	78	79	50 - 120	1	30	
Naphthalene	75	73	37 - 120	4	30	
n-Decane	54	50	28 - 120	7	61	
Nitrobenzene	80	81	46 - 120	1	30	
N-Nitrosodimethylamine	78	77	37 - 120	1	30	
N-Nitrosodi-n-propylamine	81	80	50 - 120	2	30	
N-Nitrosodiphenylamine	90	88	46 - 203	3	50	
p-Cresol	87	86	42 - 120	1	39	
Pentachlorophenol	75	74	46 - 120	2	30	
Phenanthrene	92	88	54 - 120	4	30	
Phenol	87	88	37 - 112	1	30	
Pyrene	92	90	55 - 115	2	30	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
2,4,6-Tribromophenol	86		87		50 - 120	
2-Fluorobiphenyl	90		91		36 - 120	
2-Fluorophenol	89		89		30 - 120	
Nitrobenzene-d5	84		84		45 - 120	
Phenol-d5	90		88		36 - 120	
Terphenyl-d14	100		98		41 - 120	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-209177**

**Method: 625
Preparation: 625**

LCS Lab Sample ID:	LCS 280-209177/2-A	Units:	mg/L	LCS Lab Sample ID:	LCSD 280-209177/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 1141			Analysis Date:	01/23/2014 1209
Prep Date:	01/20/2014 1043			Prep Date:	01/20/2014 1043
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
1,2,4-Trichlorobenzene	0.0800	0.0800	0.0551	0.0534
1,2-Dichlorobenzene	0.0800	0.0800	0.0588	0.0549
1,3-Dichlorobenzene	0.0800	0.0800	0.0556	0.0527
1,4-Dichlorobenzene	0.0800	0.0800	0.0559	0.0537
2,2'-Oxybis(1-chloropropane)	0.0800	0.0800	0.0581	0.0579
2,4,6-Trichlorophenol	0.0800	0.0800	0.0703	0.0722
2,4-Dichlorophenol	0.0800	0.0800	0.0695	0.0713
2,4-Dimethylphenol	0.0800	0.0800	0.0535	0.0542
2,4-Dinitrophenol	0.160	0.160	0.135	0.134
2,4-Dinitrotoluene	0.0800	0.0800	0.0763	0.0764
2,6-Dinitrotoluene	0.0800	0.0800	0.0751	0.0726
2-Chloronaphthalene	0.0800	0.0800	0.0635	0.0627
2-Chlorophenol	0.0800	0.0800	0.0717	0.0717
2-Methylphenol	0.0800	0.0800	0.0673	0.0660
2-Nitrophenol	0.0800	0.0800	0.0736	0.0731
3,3'-Dichlorobenzidine	0.0800	0.0800	0.0323 J	0.0353 J
4,6-Dinitro-2-methylphenol	0.160	0.160	0.159	0.153
4-Bromophenyl phenyl ether	0.0800	0.0800	0.0693	0.0661
4-Chloro-3-methylphenol	0.0800	0.0800	0.0712	0.0724
4-Chlorophenyl phenyl ether	0.0800	0.0800	0.0674	0.0672
4-Nitrophenol	0.160	0.160	0.144	0.141
Acenaphthene	0.0800	0.0800	0.0688	0.0683
Acenaphthylene	0.0800	0.0800	0.0668	0.0659
Anthracene	0.0800	0.0800	0.0705	0.0683
Benzidine	0.0800	0.0800	ND	ND
Benzo[a]anthracene	0.0800	0.0800	0.0725	0.0713
Benzo[a]pyrene	0.0800	0.0800	0.0691	0.0679
Benzo[b]fluoranthene	0.0800	0.0800	0.0752	0.0726
Benzo[g,h,i]perylene	0.0800	0.0800	0.0710	0.0684
Benzo[k]fluoranthene	0.0800	0.0800	0.0743	0.0715
Bis(2-chloroethoxy)methane	0.0800	0.0800	0.0689	0.0702
Bis(2-chloroethyl)ether	0.0800	0.0800	0.0730	0.0684
Bis(2-ethylhexyl) phthalate	0.0800	0.0800	0.0755	0.0747
Butyl benzyl phthalate	0.0800	0.0800	0.0751	0.0730
Chrysene	0.0800	0.0800	0.0732	0.0708
Dibenz(a,h)anthracene	0.0800	0.0800	0.0700	0.0709
Diethyl phthalate	0.0800	0.0800	0.0738	0.0745
Dimethyl phthalate	0.0800	0.0800	0.0741	0.0738
Di-n-butyl phthalate	0.0800	0.0800	0.0743	0.0718

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-209177

Method: 625
Preparation: 625

LCS Lab Sample ID:	LCS 280-209177/2-A	Units:	mg/L	LCS Lab Sample ID:	LCSD 280-209177/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 1141			Analysis Date:	01/23/2014 1209
Prep Date:	01/20/2014 1043			Prep Date:	01/20/2014 1043
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Di-n-octyl phthalate	0.0800	0.0800	0.0759	0.0733
Fluoranthene	0.0800	0.0800	0.0730	0.0712
Fluorene	0.0800	0.0800	0.0698	0.0697
Hexachlorobenzene	0.0800	0.0800	0.0658	0.0632
Hexachlorobutadiene	0.0800	0.0800	0.0509	0.0494
Hexachlorocyclopentadiene	0.0800	0.0800	0.0112 J	0.0127 J
Hexachloroethane	0.0800	0.0800	0.0536	0.0504
Indeno[1,2,3-cd]pyrene	0.0800	0.0800	0.0726	0.0702
Isophorone	0.0800	0.0800	0.0625	0.0628
Naphthalene	0.0800	0.0800	0.0604	0.0582
n-Decane	0.0800	0.0800	0.0432	0.0402
Nitrobenzene	0.0800	0.0800	0.0641	0.0648
N-Nitrosodimethylamine	0.0800	0.0800	0.0623	0.0617
N-Nitrosodi-n-propylamine	0.0800	0.0800	0.0652	0.0642
N-Nitrosodiphenylamine	0.0800	0.0800	0.0719	0.0700
p-Cresol	0.0800	0.0800	0.0695	0.0685
Pentachlorophenol	0.160	0.160	0.120	0.118
Phenanthrene	0.0800	0.0800	0.0734	0.0706
Phenol	0.0800	0.0800	0.0695	0.0704
Pyrene	0.0800	0.0800	0.0737	0.0724

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 440-157224

Method: 218.6

Preparation: N/A

Lab Sample ID:	MB 440-157224/3	Analysis Batch:	440-157224	Instrument ID:	IC-20
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_TAIIRVIC20_Hexav.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/21/2014 0649	Units:	ug/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	1000 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chromium, hexavalent	ND		0.25	1.0

Lab Control Sample - Batch: 440-157224

Method: 218.6

Preparation: N/A

Lab Sample ID:	LCS 440-157224/2	Analysis Batch:	440-157224	Instrument ID:	IC-20
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_TAIIRVIC20_Hexav.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/21/2014 0636	Units:	ug/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	1000 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium, hexavalent	50.0	49.7	99	90 - 110	

Method Reporting Limit Check - Batch: 440-157224

Method: 218.6

Preparation: N/A

Lab Sample ID:	MRL 440-157224/4	Analysis Batch:	440-157224	Instrument ID:	IC-20
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_TAIIRVIC20_Hexav.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/21/2014 0702	Units:	ug/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	1000 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium, hexavalent	1.00	1.09	109	50 - 150	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 440-157224****Method: 218.6
Preparation: N/A**

MS Lab Sample ID:	440-67999-H-2 MS	Analysis Batch:	440-157224	Instrument ID:	IC-20
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_TAIIRVIC20_Hexav.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/21/2014 2240			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	1000 uL
Leach Date:	N/A				

MSD Lab Sample ID:	440-67999-H-2 MSD	Analysis Batch:	440-157224	Instrument ID:	IC-20
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_TAIIRVIC20_Hexav.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/21/2014 2253			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	1000 uL
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chromium, hexavalent	103	105	90 - 110	1	10		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 440-157224****Method: 218.6
Preparation: N/A**

MS Lab Sample ID:	440-67999-H-2 MS	Units:	ug/L	MSD Lab Sample ID:	440-67999-H-2 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/21/2014 2240			Analysis Date:	01/21/2014 2253
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike	MSD Spike	MS Result/Qual	MSD Result/Qual
		Amount	Amount		
Chromium, hexavalent	ND	50.0	50.0	51.7	52.4

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209053**Method: 200.7 Rev 4.4****Preparation: 200.7****Total Recoverable**

Lab Sample ID:	MB 280-209053/1-A	Analysis Batch:	280-209348	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-209053	Lab File ID:	25A6012014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/20/2014 2229	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	01/20/2014 1230				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Iron	ND		0.022	0.10
Lead	ND		0.0026	0.0090
Selenium	ND		0.0049	0.015
Zinc	ND		0.0045	0.020
Silver	ND		0.00093	0.010

Lab Control Sample - Batch: 280-209053**Method: 200.7 Rev 4.4****Preparation: 200.7****Total Recoverable**

Lab Sample ID:	LCS 280-209053/2-A	Analysis Batch:	280-209348	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-209053	Lab File ID:	25A6012014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/20/2014 2231	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	01/20/2014 1230				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1.00	1.00	100	88 - 110	
Cadmium	0.100	0.103	103	88 - 111	
Iron	1.00	0.987	99	89 - 115	
Lead	0.500	0.496	99	89 - 110	
Selenium	2.00	2.00	100	85 - 112	
Zinc	0.500	0.487	97	85 - 111	
Silver	0.0500	0.0505	101	85 - 115	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-209053**

Method: 200.7 Rev 4.4

Preparation: 200.7

Total Recoverable

MS Lab Sample ID:	280-51270-D-1-B MS	Analysis Batch:	280-209348	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-209053	Lab File ID:	25A6012014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/20/2014 2244			Final Weight/Volume:	50 mL
Prep Date:	01/20/2014 1230				
Leach Date:	N/A				

MSD Lab Sample ID:	280-51270-D-1-C MSD	Analysis Batch:	280-209348	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-209053	Lab File ID:	25A6012014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/20/2014 2247			Final Weight/Volume:	50 mL
Prep Date:	01/20/2014 1230				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	108	109	88 - 110	1	20		
Cadmium	109	110	88 - 111	0	20		
Iron	128	188	89 - 115	1	20	4	4
Lead	89	90	89 - 110	0	20		
Selenium	106	107	85 - 112	1	20		
Zinc	92	92	85 - 111	0	20		
Silver	123	123	85 - 115	0	20	F1	F1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-209053**

Method: 200.7 Rev 4.4

Preparation: 200.7

Total Recoverable

MS Lab Sample ID:	280-51270-D-1-B MS	Units:	mg/L	MSD Lab Sample ID:	280-51270-D-1-C MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/20/2014 2244			Analysis Date:	01/20/2014 2247
Prep Date:	01/20/2014 1230			Prep Date:	01/20/2014 1230
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
	Result/Qual	Amount					
Arsenic	0.057		1.00	1.00	1.14	1.15	
Cadmium	0.0012	J	0.100	0.100	0.111	0.111	
Iron	41		1.00	1.00	42.2	4	42.8
Lead	0.0030	J	0.500	0.500	0.450	0.451	
Selenium	0.0069	J	2.00	2.00	2.13	2.15	
Zinc	0.095		0.500	0.500	0.554	0.556	
Silver	ND		0.0500	0.0500	0.0614	F1	0.0616

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209679
Method: 245.1
Preparation: 245.1

Lab Sample ID:	MB 280-209679/1-A	Analysis Batch:	280-209898	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-209679	Lab File ID:	140123tab2.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	01/23/2014 1400	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	01/23/2014 1000				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND	^	0.000027	0.00020

Lab Control Sample - Batch: 280-209679
Method: 245.1
Preparation: 245.1

Lab Sample ID:	LCS 280-209679/2-A	Analysis Batch:	280-209898	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-209679	Lab File ID:	140123tab2.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	01/23/2014 1403	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	01/23/2014 1000				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00459	92	90 - 110	^

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-209679**
Method: 245.1
Preparation: 245.1

MS Lab Sample ID:	280-51392-B-1-K MS	Analysis Batch:	280-209898	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-209679	Lab File ID:	140123tab2.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	01/23/2014 1407			Final Weight/Volume:	30 mL
Prep Date:	01/23/2014 1000				
Leach Date:	N/A				

MSD Lab Sample ID:	280-51392-B-1-L MSD	Analysis Batch:	280-209898	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-209679	Lab File ID:	140123tab2.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	01/23/2014 1410			Final Weight/Volume:	30 mL
Prep Date:	01/23/2014 1000				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	91	92	80 - 120	1	10	^	^

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-209679

Method: 245.1
Preparation: 245.1

MS Lab Sample ID: 280-51392-B-1-K MS Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 01/23/2014 1407
Prep Date: 01/23/2014 1000
Leach Date: N/A

MSD Lab Sample ID: 280-51392-B-1-L MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 01/23/2014 1410
Prep Date: 01/23/2014 1000
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	ND	0.00500	0.00500	0.00455 ^	0.00459 ^

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209083

Method: 1664A

Preparation: 1664A

Lab Sample ID:	MB 280-209083/1-A	Analysis Batch:	280-209096	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-209083	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/18/2014 1332	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	01/18/2014 0920				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
HEM	ND		1.6	5.0

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-209083

Method: 1664A

Preparation: 1664A

LC Lab Sample ID:	LCS 280-209083/2-A	Analysis Batch:	280-209096	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-209083	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/18/2014 1332	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	01/18/2014 0920				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209083/3-A	Analysis Batch:	280-209096	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-209083	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	01/18/2014 1332	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	01/18/2014 0920				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
HEM	90	87	81 - 107	3	22	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-209083

Method: 1664A

Preparation: 1664A

LCS Lab Sample ID:	LCS 280-209083/2-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-209083/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/18/2014 1332			Analysis Date:	01/18/2014 1332
Prep Date:	01/18/2014 0920			Prep Date:	01/18/2014 0920
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
HEM	40.0	40.0	35.8	34.8

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209837

Method: 350.1

Preparation: N/A

Lab Sample ID:	MB 280-209837/60	Analysis Batch:	280-209837	Instrument ID:	WC_AlP 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	E:\FLOW_4\012314.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/23/2014 1527	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Ammonia	ND		0.022	0.10

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-209837

Method: 350.1

Preparation: N/A

LCS Lab Sample ID:	LCS 280-209837/58	Analysis Batch:	280-209837	Instrument ID:	WC_AlP 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	E:\FLOW_4\012314.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/23/2014 1522	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209837/59	Analysis Batch:	280-209837	Instrument ID:	WC_AlP 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	E:\FLOW_4\012314.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/23/2014 1525	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Ammonia	104	104	90 - 110	1	10	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-209837

Method: 350.1

Preparation: N/A

LCS Lab Sample ID:	LCS 280-209837/58	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-209837/59
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 1522			Analysis Date:	01/23/2014 1525
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Ammonia	2.50	2.50	2.61	2.59

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-209837****Method: 350.1
Preparation: N/A**

MS Lab Sample ID:	280-51186-B-2 MS	Analysis Batch:	280-209837	Instrument ID:	WC_Alp 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	E:\FLOW_4\012314.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/23/2014 1628			Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-51186-B-2 MSD	Analysis Batch:	280-209837	Instrument ID:	WC_Alp 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	E:\FLOW_4\012314.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	01/23/2014 1630			Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Ammonia	111	111	90 - 110	0	10	F1	F1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-209837****Method: 350.1
Preparation: N/A**

MS Lab Sample ID:	280-51186-B-2 MS	Units:	mg/L	MSD Lab Sample ID:	280-51186-B-2 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 1628			Analysis Date:	01/23/2014 1630
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike	MSD Spike	MS Result/Qual	MSD	MSD Result/Qual	
		Amount	Amount				
Ammonia	0.32	1.00	1.00	1.43	F1	1.43	F1

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209604**Method: 351.2****Preparation: 351.2**

Lab Sample ID:	MB 280-209604/1-A	Analysis Batch:	280-209798	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-209604	Lab File ID:	012314.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	01/23/2014 1314	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	01/22/2014 1509				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrogen, Kjeldahl	ND		0.18	0.50

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-209604****Method: 351.2****Preparation: 351.2**

LCS Lab Sample ID:	LCS 280-209604/2-A	Analysis Batch:	280-209798	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-209604	Lab File ID:	012314.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	01/23/2014 1312	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	01/22/2014 1509				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209604/3-A	Analysis Batch:	280-209798	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-209604	Lab File ID:	012314.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	01/23/2014 1313	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	01/22/2014 1509				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Nitrogen, Kjeldahl	96	96	90 - 110	1	25	

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-209604****Method: 351.2****Preparation: 351.2**

LCS Lab Sample ID:	LCS 280-209604/2-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-209604/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 1312			Analysis Date:	01/23/2014 1313
Prep Date:	01/22/2014 1509			Prep Date:	01/22/2014 1509
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrogen, Kjeldahl	6.00	6.00	5.74	5.78

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-209604

Method: 351.2
Preparation: 351.2

MS Lab Sample ID:	280-51248-2	Analysis Batch:	280-209798	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-209604	Lab File ID:	012314.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	01/23/2014 1317			Final Weight/Volume:	25 mL
Prep Date:	01/22/2014 1509				
Leach Date:	N/A				

MSD Lab Sample ID:	280-51248-2	Analysis Batch:	280-209798	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-209604	Lab File ID:	012314.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	01/23/2014 1318			Final Weight/Volume:	25 mL
Prep Date:	01/22/2014 1509				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrogen, Kjeldahl	97	97	90 - 110	0	25		

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-209604

Method: 351.2
Preparation: 351.2

MS Lab Sample ID:	280-51248-2	Units:	mg/L	MSD Lab Sample ID:	280-51248-2
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 1317			Analysis Date:	01/23/2014 1318
Prep Date:	01/22/2014 1509			Prep Date:	01/22/2014 1509
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Nitrogen, Kjeldahl	0.75	3.00	3.00	3.66	3.66

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209801
Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-209801/28	Analysis Batch:	280-209801	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0122NXNC.R\
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/22/2014 1855	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Method Reporting Limit Check - Batch: 280-209801
Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-209801/18	Analysis Batch:	280-209801	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0122NXNC.R\
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/22/2014 1840	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	0.100	0.0793	79	50 - 150	J

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-209801**
Method: 353.2
Preparation: N/A

LCS Lab Sample ID:	LCS 280-209801/29	Analysis Batch:	280-209801	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0122NXNC.R\
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/22/2014 1856	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209801/30	Analysis Batch:	280-209801	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0122NXNC.R\
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/22/2014 1858	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Nitrate Nitrite as N	103	102	90 - 110	1	10	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-209801

Method: 353.2
Preparation: N/A

LCS Lab Sample ID:	LCS 280-209801/29	Units:	mg/L	LCS Lab Sample ID:	LCSD 280-209801/30
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/22/2014 1856			Analysis Date:	01/22/2014 1858
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.15	5.11

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-209801

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	280-51248-2	Analysis Batch:	280-209801	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0122NXNC.RQ
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2014 1932			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-51248-2	Analysis Batch:	280-209801	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0122NXNC.RQ
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/22/2014 1934			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate Nitrite as N	93	100	90 - 110	4	10		

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-209801

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	280-51248-2	Units:	mg/L	MSD Lab Sample ID:	280-51248-2
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/22/2014 1932			Analysis Date:	01/22/2014 1934
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	3.2	4.00	4.00	6.95	7.23

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-210397**Method: 365.1****Preparation: 365.2/365.3/365**

Lab Sample ID:	MB 280-210397/5-A	Analysis Batch:	280-210630	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-210397	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/29/2014 2217	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	01/28/2014 1700				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Phosphorus, Total	ND		0.0050	0.050

Laboratory Control Sample/**Laboratory Control Sample Duplicate Recovery Report - Batch: 280-210397****Method: 365.1****Preparation: 365.2/365.3/365**

LCS Lab Sample ID:	LCS 280-210397/3-A	Analysis Batch:	280-210630	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-210397	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/29/2014 2217	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	01/28/2014 1700				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-210397/4-A	Analysis Batch:	280-210630	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-210397	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/29/2014 2217	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	01/28/2014 1700				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Phosphorus, Total	106	110	90 - 110	4	10	

Laboratory Control/**Laboratory Duplicate Data Report - Batch: 280-210397****Method: 365.1****Preparation: 365.2/365.3/365**

LCS Lab Sample ID:	LCS 280-210397/3-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-210397/4-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/29/2014 2217			Analysis Date:	01/29/2014 2217
Prep Date:	01/28/2014 1700			Prep Date:	01/28/2014 1700
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Phosphorus, Total	0.500	0.500	0.531	0.551

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-210397

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID:	280-51248-2	Analysis Batch:	280-210630	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-210397	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/29/2014 2217			Final Weight/Volume:	50 mL
Prep Date:	01/28/2014 1700				
Leach Date:	N/A				

MSD Lab Sample ID:	280-51248-2	Analysis Batch:	280-210630	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-210397	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/29/2014 2217			Final Weight/Volume:	50 mL
Prep Date:	01/28/2014 1700				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phosphorus, Total	110	119	90 - 110	5	10		F1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-210397

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID:	280-51248-2	Units:	mg/L	MSD Lab Sample ID:	280-51248-2
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/29/2014 2217			Analysis Date:	01/29/2014 2217
Prep Date:	01/28/2014 1700			Prep Date:	01/28/2014 1700
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Phosphorus, Total	0.28	0.500	0.500	0.830	0.872
					F1

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209703

Method: 410.4
Preparation: N/A

Lab Sample ID:	MB 280-209703/5	Analysis Batch:	280-209703	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2 mL
Analysis Date:	01/23/2014 0849	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chemical Oxygen Demand	ND		4.1	20

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-209703

Method: 410.4
Preparation: N/A

LCS Lab Sample ID:	LCS 280-209703/3	Analysis Batch:	280-209703	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/23/2014 0849	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209703/4	Analysis Batch:	280-209703	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/23/2014 0849	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chemical Oxygen Demand	100	100	90 - 110	1	11		

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-209703

Method: 410.4
Preparation: N/A

LCS Lab Sample ID:	LCS 280-209703/3	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-209703/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 0849			Analysis Date:	01/23/2014 0849
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chemical Oxygen Demand	100	100	100	99.7

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-209703

Method: 410.4
Preparation: N/A

MS Lab Sample ID:	280-51205-A-1 MS	Analysis Batch:	280-209703	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/23/2014 0849			Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-51205-A-1 MSD	Analysis Batch:	280-209703	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/23/2014 0849			Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chemical Oxygen Demand	92	95	90 - 110	2	11		

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-209703

Method: 410.4
Preparation: N/A

MS Lab Sample ID:	280-51205-A-1 MS	Units:	mg/L	MSD Lab Sample ID:	280-51205-A-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/23/2014 0849			Analysis Date:	01/23/2014 0849
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
	Result/Qual					
Chemical Oxygen Demand	17	J	50.0	50.0	63.4	64.9

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-209264

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 280-209264/1	Analysis Batch:	280-209264	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	01/20/2014 1747	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	ND		1.1	4.0

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-209264

Method: SM 2540D

Preparation: N/A

LCS Lab Sample ID:	LCS 280-209264/2	Analysis Batch:	280-209264	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/20/2014 1747	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-209264/3	Analysis Batch:	280-209264	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/20/2014 1747	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Total Suspended Solids	102	101	86 - 114	1	20	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-209264

Method: SM 2540D

Preparation: N/A

LCS Lab Sample ID:	LCS 280-209264/2	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-209264/3
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/20/2014 1747			Analysis Date:	01/20/2014 1747
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Suspended Solids	100	100	102	101

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Duplicate - Batch: 280-209264

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	280-51244-A-2 DU	Analysis Batch:	280-209264	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	01/20/2014 1747	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	7.6	9.20	19	10	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Method Blank - Batch: 280-210108

Method: Total Nitrogen

Preparation: N/A

Lab Sample ID:	MB 280-210108/1	Analysis Batch:	280-210108	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/27/2014 0824	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrogen, Total	ND		0.042	0.10

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Laboratory Chronicle

Lab ID: 280-51248-2

Client ID: DB01W

Sample Date/Time: 01/14/2014 09:45 Received Date/Time: 01/16/2014 09:20

Method	Bottle ID	Run	Analysis		Date Prepared / Analyzed		Dil	Lab	Analyst
			Batch	Prep Batch					
P:625	280-51248-C-2-A	280-209708	280-209177	01/20/2014 10:43	1	TAL DEN	BMS		
A:625	280-51248-C-2-A	280-209708	280-209177	01/23/2014 21:27	1	TAL DEN	MGH		
A:218.6	280-51248-I-2	440-157224		01/21/2014 18:54	1	TAL IRV	QPD		
P:200.7	280-51248-H-2-A	280-209348	280-209053	01/20/2014 12:30	1	TAL DEN	WAW		
A:200.7 Rev 4.4	280-51248-H-2-A	280-209348	280-209053	01/20/2014 22:36	1	TAL DEN	JKH		
P:245.1	280-51248-H-2-B	280-209898	280-209679	01/23/2014 10:00	1	TAL DEN	CRR		
A:245.1	280-51248-H-2-B	280-209898	280-209679	01/23/2014 15:08	1	TAL DEN	CRR		
P:1664A	280-51248-B-2-A	280-209096	280-209083	01/18/2014 09:20	1	TAL DEN	AFB		
A:1664A	280-51248-B-2-A	280-209096	280-209083	01/18/2014 13:32	1	TAL DEN	AFB		
A:350.1	280-51248-F-2	280-209837		01/23/2014 16:44	1	TAL DEN	SMG		
P:351.2	280-51248-G-2-A	280-209798	280-209604	01/22/2014 15:09	1	TAL DEN	SMG		
A:351.2	280-51248-G-2-A	280-209798	280-209604	01/23/2014 13:16	1	TAL DEN	SMG		
A:353.2	280-51248-F-2	280-209801		01/22/2014 19:31	1	TAL DEN	DVA		
P:365.2/365.3/365	280-51248-F-2-C	280-210630	280-210397	01/28/2014 17:00	1	TAL DEN	AJS		
A:365.1	280-51248-F-2-C	280-210630	280-210397	01/29/2014 22:17	1	TAL DEN	AJS		
A:410.4	280-51248-G-2	280-209703		01/23/2014 08:49	1	TAL DEN	CCJ		
A:SM 2540D	280-51248-E-2	280-209264		01/20/2014 17:47	1	TAL DEN	ELJ		
A:Total Nitrogen	280-51248-A-2	280-210108		01/27/2014 08:24	1	TAL DEN	RKS		
A:Field Sampling	280-51248-A-2	280-209216		01/14/2014 09:45	1	TAL DEN	FS		

Lab ID: 280-51248-2 MS

Client ID: DB01W

Sample Date/Time: 01/14/2014 09:45 Received Date/Time: 01/16/2014 09:20

Method	Bottle ID	Run	Analysis		Date Prepared / Analyzed		Dil	Lab	Analyst
			Batch	Prep Batch					
P:351.2	280-51248-G-2-B MS	280-209798	280-209604	01/22/2014 15:09	1	TAL DEN	SMG		
A:351.2	280-51248-G-2-B MS	280-209798	280-209604	01/23/2014 13:17	1	TAL DEN	SMG		
A:353.2	280-51248-F-2 MS	280-209801		01/22/2014 19:32	1	TAL DEN	DVA		
P:365.2/365.3/365	280-51248-F-2-D MS	280-210630	280-210397	01/28/2014 17:00	1	TAL DEN	AJS		
A:365.1	280-51248-F-2-D MS	280-210630	280-210397	01/29/2014 22:17	1	TAL DEN	AJS		

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Laboratory Chronicle

Lab ID: 280-51248-2 MSD

Client ID: DB01W

Sample Date/Time: 01/14/2014 09:45 Received Date/Time: 01/16/2014 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:351.2	280-51248-G-2-C MSD		280-209798	280-209604	01/22/2014 15:09	1	TAL DEN	SMG
A:351.2	280-51248-G-2-C MSD		280-209798	280-209604	01/23/2014 13:18	1	TAL DEN	SMG
A:353.2	280-51248-F-2 MSD		280-209801		01/22/2014 19:34	1	TAL DEN	DVA
P:365.2/365.3/36 5	280-51248-F-2-E MSD		280-210630	280-210397	01/28/2014 17:00	1	TAL DEN	AJS
A:365.1	280-51248-F-2-E MSD		280-210630	280-210397	01/29/2014 22:17	1	TAL DEN	AJS

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	MB 280-209177/1-A		280-209708	280-209177	01/20/2014 10:43	1	TAL DEN	BMS
A:625	MB 280-209177/1-A		280-209708	280-209177	01/23/2014 20:32	1	TAL DEN	MGH
A:218.6	MB 440-157224/3		440-157224		01/21/2014 06:49	1	TAL IRV	QPD
P:200.7	MB 280-209053/1-A		280-209348	280-209053	01/20/2014 12:30	1	TAL DEN	WAW
A:200.7 Rev 4.4	MB 280-209053/1-A		280-209348	280-209053	01/20/2014 22:29	1	TAL DEN	JKH
P:245.1	MB 280-209679/1-A		280-209898	280-209679	01/23/2014 10:00	1	TAL DEN	CRR
A:245.1	MB 280-209679/1-A		280-209898	280-209679	01/23/2014 14:00	1	TAL DEN	CRR
P:1664A	MB 280-209083/1-A		280-209096	280-209083	01/18/2014 09:20	1	TAL DEN	AFB
A:1664A	MB 280-209083/1-A		280-209096	280-209083	01/18/2014 13:32	1	TAL DEN	AFB
A:350.1	MB 280-209837/60		280-209837		01/23/2014 15:27	1	TAL DEN	SMG
P:351.2	MB 280-209604/1-A		280-209798	280-209604	01/22/2014 15:09	1	TAL DEN	SMG
A:351.2	MB 280-209604/1-A		280-209798	280-209604	01/23/2014 13:14	1	TAL DEN	SMG
A:353.2	MB 280-209801/28		280-209801		01/22/2014 18:55	1	TAL DEN	DVA
P:365.2/365.3/36 5	MB 280-210397/5-A		280-210630	280-210397	01/28/2014 17:00	1	TAL DEN	AJS
A:365.1	MB 280-210397/5-A		280-210630	280-210397	01/29/2014 22:17	1	TAL DEN	AJS
A:410.4	MB 280-209703/5		280-209703		01/23/2014 08:49	1	TAL DEN	CCJ
A:SM 2540D	MB 280-209264/1		280-209264		01/20/2014 17:47	1	TAL DEN	ELJ
A:Total Nitrogen	MB 280-210108/1		280-210108		01/27/2014 08:24	1	TAL DEN	RKS

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Laboratory Chronicle

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	LCS 280-209177/2-A	280-209708	280-209177	01/20/2014 10:43	1	TAL DEN	BMS	
A:625	LCS 280-209177/2-A	280-209708	280-209177	01/23/2014 11:41	1	TAL DEN	MGH	
A:218.6	LCS 440-157224/2	440-157224		01/21/2014 06:36	1	TAL IRV	QPD	
P:200.7	LCS 280-209053/2-A	280-209348	280-209053	01/20/2014 12:30	1	TAL DEN	WAW	
A:200.7 Rev 4.4	LCS 280-209053/2-A	280-209348	280-209053	01/20/2014 22:31	1	TAL DEN	JKH	
P:245.1	LCS 280-209679/2-A	280-209898	280-209679	01/23/2014 10:00	1	TAL DEN	CRR	
A:245.1	LCS 280-209679/2-A	280-209898	280-209679	01/23/2014 14:03	1	TAL DEN	CRR	
P:1664A	LCS 280-209083/2-A	280-209096	280-209083	01/18/2014 09:20	1	TAL DEN	AFB	
A:1664A	LCS 280-209083/2-A	280-209096	280-209083	01/18/2014 13:32	1	TAL DEN	AFB	
A:350.1	LCS 280-209837/58	280-209837		01/23/2014 15:22	1	TAL DEN	SMG	
P:351.2	LCS 280-209604/2-A	280-209798	280-209604	01/22/2014 15:09	1	TAL DEN	SMG	
A:351.2	LCS 280-209604/2-A	280-209798	280-209604	01/23/2014 13:12	1	TAL DEN	SMG	
A:353.2	LCS 280-209801/29	280-209801		01/22/2014 18:56	1	TAL DEN	DVA	
P:365.2/365.3/365	LCS 280-210397/3-A	280-210630	280-210397	01/28/2014 17:00	1	TAL DEN	AJS	
A:365.1	LCS 280-210397/3-A	280-210630	280-210397	01/29/2014 22:17	1	TAL DEN	AJS	
A:410.4	LCS 280-209703/3	280-209703		01/23/2014 08:49	1	TAL DEN	CCJ	
A:SM 2540D	LCS 280-209264/2	280-209264		01/20/2014 17:47	1	TAL DEN	ELJ	

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	LCSD 280-209177/3-A	280-209708	280-209177	01/20/2014 10:43	1	TAL DEN	BMS	
A:625	LCSD 280-209177/3-A	280-209708	280-209177	01/23/2014 12:09	1	TAL DEN	MGH	
P:1664A	LCSD 280-209083/3-A	280-209096	280-209083	01/18/2014 09:20	1	TAL DEN	AFB	
A:1664A	LCSD 280-209083/3-A	280-209096	280-209083	01/18/2014 13:32	1	TAL DEN	AFB	
A:350.1	LCSD 280-209837/59	280-209837		01/23/2014 15:25	1	TAL DEN	SMG	
P:351.2	LCSD 280-209604/3-A	280-209798	280-209604	01/22/2014 15:09	1	TAL DEN	SMG	
A:351.2	LCSD 280-209604/3-A	280-209798	280-209604	01/23/2014 13:13	1	TAL DEN	SMG	
A:353.2	LCSD 280-209801/30	280-209801		01/22/2014 18:58	1	TAL DEN	DVA	
P:365.2/365.3/365	LCSD 280-210397/4-A	280-210630	280-210397	01/28/2014 17:00	1	TAL DEN	AJS	
A:365.1	LCSD 280-210397/4-A	280-210630	280-210397	01/29/2014 22:17	1	TAL DEN	AJS	
A:410.4	LCSD 280-209703/4	280-209703		01/23/2014 08:49	1	TAL DEN	CCJ	
A:SM 2540D	LCSD 280-209264/3	280-209264		01/20/2014 17:47	1	TAL DEN	ELJ	

Quality Control Results

Client: Waste Management

Job Number: 280-51248-2

Laboratory Chronicle

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:218.6	MRL 440-157224/4		440-157224		01/21/2014 07:02	1	TAL IRV	QPD
A:353.2	MRL 280-209801/18		280-209801		01/22/2014 18:40	1	TAL DEN	DVA

Lab ID: MS

Client ID: N/A

Sample Date/Time: 01/21/2014 14:00

Received Date/Time: 01/21/2014 18:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:218.6	440-67999-H-2 MS		440-157224		01/21/2014 22:40	1	TAL IRV	QPD
P:200.7	280-51270-D-1-B MS		280-209348	280-209053	01/20/2014 12:30	1	TAL DEN	WAW
A:200.7 Rev 4.4	280-51270-D-1-B MS		280-209348	280-209053	01/20/2014 22:44	1	TAL DEN	JKH
P:245.1	280-51392-B-1-K MS		280-209898	280-209679	01/23/2014 10:00	1	TAL DEN	CRR
A:245.1	280-51392-B-1-K MS		280-209898	280-209679	01/23/2014 14:07	1	TAL DEN	CRR
A:350.1	280-51186-B-2 MS		280-209837		01/23/2014 16:28	1	TAL DEN	SMG
A:410.4	280-51205-A-1 MS		280-209703		01/23/2014 08:49	1	TAL DEN	CCJ

Lab ID: MSD

Client ID: N/A

Sample Date/Time: 01/21/2014 14:00

Received Date/Time: 01/21/2014 18:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:218.6	440-67999-H-2 MSD		440-157224		01/21/2014 22:53	1	TAL IRV	QPD
P:200.7	280-51270-D-1-C MSD		280-209348	280-209053	01/20/2014 12:30	1	TAL DEN	WAW
A:200.7 Rev 4.4	280-51270-D-1-C MSD		280-209348	280-209053	01/20/2014 22:47	1	TAL DEN	JKH
P:245.1	280-51392-B-1-L MSD		280-209898	280-209679	01/23/2014 10:00	1	TAL DEN	CRR
A:245.1	280-51392-B-1-L MSD		280-209898	280-209679	01/23/2014 14:10	1	TAL DEN	CRR
A:350.1	280-51186-B-2 MSD		280-209837		01/23/2014 16:30	1	TAL DEN	SMG
A:410.4	280-51205-A-1 MSD		280-209703		01/23/2014 08:49	1	TAL DEN	CCJ

Lab ID: DU

Client ID: N/A

Sample Date/Time: 01/14/2014 09:22

Received Date/Time: 01/16/2014 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2540D	280-51244-A-2 DU		280-209264		01/20/2014 17:47	1	TAL DEN	ELJ

Lab References:

TAL DEN = TestAmerica Denver

TAL IRV = TestAmerica Irvine

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Honolulu

1946 Young St. Suite 400A

Honolulu, HI 96826

Tel: 808-486-5227

TestAmerica Job ID: HXA0047

Client Project/Site: 60287037.02

Client Project Description: AECOM, W GSL STORMWATER

For:

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Attn: Betsy Sara

Kristie Reilly

Authorized for release by:

1/24/2014 5:04:53 PM

Kristie Reilly, Project Manager

808-486-5227

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions	3
Case Narrative	4
Sample Summary	5
Detection Summary	6
Client Sample Results	7
QC Sample Results	8
QC Association	9
Chronicle	10
Certification Summary	11
Method Summary	12
Chain of Custody	13

Definitions/Glossary

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Qualifiers

WetChem

Qualifier	Qualifier Description
L2	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
R2	The RPD exceeded the acceptance limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Job ID: HXA0047

Laboratory: TestAmerica Honolulu

Narrative

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory unless otherwise stated in the report. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific sample(s) analyzed.

The Chain(s) of Custody are included and are an integral part of this report. This entire report was reviewed and approved for release.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(808)486-5227

LABORATORY REPORT

At sample receipt, the cooler/sample was 22.1 degrees C.

NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

The following non conformances occurred during the process of analyzing BOD in batch 14A0024:

The LCS in BOD batch 14A0024 containing sample HXA0047-01 failed slightly low. The RPD between the sample and the duplicate in the batch was over the acceptable range which may be due to low analyte concentration in the sample.

The incubator temperature was out of acceptable range at 22°C (Range is 19-21°C). Reanalysis was not possible due to holding time and method parameters.

Sample Summary

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
HXA0047-01	280-51248-2 / DB01-W	Water - NonPotable	01/14/14 09:45	01/14/14 11:35

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Detection Summary

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Client Sample ID: 280-51248-2 / DB01-W

Lab Sample ID: HXA0047-01

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Honolulu

Client Sample Results

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Client Sample ID: 280-51248-2 / DB01-W

Lab Sample ID: HXA0047-01

Date Collected: 01/14/14 09:45

Matrix: Water - NonPotable

Date Received: 01/14/14 11:35

Method: SM5210B - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BOD - 5 Day	ND		2.00		mg/L		01/15/14 15:05	01/20/14 13:07	1.00

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TestAmerica Honolulu

QC Sample Results

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Method: SM5210B - General Chemistry Parameters

Lab Sample ID: 14A0024-BLK1

Matrix: Water - NonPotable

Analysis Batch: 14A0024

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 14A0024_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BOD - 5 Day	ND		2.00		mg/L		01/15/14 14:57	01/20/14 12:53	1.00

Lab Sample ID: 14A0024-BS1

Matrix: Water - NonPotable

Analysis Batch: 14A0024

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 14A0024_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
BOD - 5 Day	198	159	L2	mg/L		81	85 - 115	

Lab Sample ID: 14A0024-DUP1

Matrix: Water - NonPotable

Analysis Batch: 14A0024

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 14A0024_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
BOD - 5 Day	4.75		3.82	R2	mg/L		22	20

QC Association Summary

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

WetChem

Analysis Batch: 14A0024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
14A0024-BLK1	Method Blank	Total	Water - NonPotable	SM5210B	14A0024_P
14A0024-BS1	Lab Control Sample	Total	Water - NonPotable	SM5210B	14A0024_P
14A0024-DUP1	Duplicate	Total	Water - NonPotable	SM5210B	14A0024_P
HXA0047-01	280-51248-2 / DB01-W	Total	Water - NonPotable	SM5210B	14A0024_P

Prep Batch: 14A0024_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
14A0024-BLK1	Method Blank	Total	Water - NonPotable	Default Prep GenChem	14A0024_P
14A0024-BS1	Lab Control Sample	Total	Water - NonPotable	Default Prep GenChem	14A0024_P
14A0024-DUP1	Duplicate	Total	Water - NonPotable	Default Prep GenChem	14A0024_P
HXA0047-01	280-51248-2 / DB01-W	Total	Water - NonPotable	Default Prep GenChem	14A0024_P

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TestAmerica Honolulu

Lab Chronicle

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Client Sample ID: 280-51248-2 / DB01-W

Lab Sample ID: HXA0047-01

Date Collected: 01/14/14 09:45

Matrix: Water - NonPotable

Date Received: 01/14/14 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Default Prep GenChem		1.00	14A0024_P	01/15/14 15:05	KR	TAL HON
Total	Analysis	SM5210B		1.00	14A0024	01/20/14 13:07	KR	TAL HON

Laboratory References:

TAL HON = TestAmerica Honolulu, 1946 Young St. Suite 400A, Honolulu, HI 96826, TEL 808-486-5227

Certification Summary

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Laboratory: TestAmerica Honolulu

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E87907	06-30-14
Hawaii	State Program	9	N/A	06-28-14
USDA	Federal		HON-S-206	01-31-15

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TestAmerica Honolulu

Method Summary

Client: TestAmerica Denver
Project/Site: 60287037.02

TestAmerica Job ID: HXA0047

Method	Method Description	Protocol	Laboratory
SM5210B	General Chemistry Parameters		TAL HON

Protocol References:

Laboratory References:

TAL HON = TestAmerica Honolulu, 1946 Young St. Suite 400A, Honolulu, HI 96826, TEL 808-486-5227

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FIELD INFORMATION FORM



Site Name:
Site No.:

W GSL Stormwater

Sample Point: DB01-W
mud

Sample ID

This Waste Management Field Information Form is Required

This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO	DB01-W mud															
	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOL PURGED (Gallons)										
Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.																
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment... Dedicated: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N			Filter Device: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N <input type="checkbox"/> 0.45 μ or <input type="checkbox"/> μ (circle or fill in)												
	Purging Device <input type="checkbox"/>			A-Submersible Pump <input type="checkbox"/> D-Bailer <input type="checkbox"/>			A-In-line Disposable <input type="checkbox"/> C-Vacuum <input type="checkbox"/>									
	Sampling Device <input type="checkbox"/> A-Submersible Pump <input type="checkbox"/> B-Peristaltic Pump <input type="checkbox"/> E-Piston Pump <input type="checkbox"/>			C-QED Bladder Pump <input type="checkbox"/> F-Dipper/Bottle <input type="checkbox"/>			B-Pressure <input type="checkbox"/> X-Other <input type="checkbox"/>									
	X-Other: <input type="checkbox"/>			Filter Type: <input type="checkbox"/>			A-Teflon <input type="checkbox"/> C-PVC <input type="checkbox"/> X-Other: <input type="checkbox"/>									
WELL DATA	Well Elevation (at TOC)				Depth to Water (DTW) (from TOC)				Groundwater Elevation (site datum, from TOC)							
	Total Well Depth (from TOC)				Stick Up (from ground elevation)				Casing ID	(in)						
	Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.						Casing Material									
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)							
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2		+/- 3%		--		+/- 10%		+/- 25 mV		Stabilize				
Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.																
FIELD DATA	SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units								
	01/14/14	7.81														
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).																
Sample Appearance: Slightly turbid				Odor: none		Color: light tan		Other: bugs swimming								
Weather Conditions (required daily, or as conditions change):				Direction/Speed: 15 mph SSW		outlook: partly cloudy		Precipitation: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N								
Specific Comments (including purge/well volume calculations if required):																
FIELD COMMENTS	A	9:45	7.81	20 Sec/L	East	West										
	B	10:00	7.85	22 Sec/L	$1/8\text{in} = 0.025\text{ft}^3/\text{sec}$	$1/8\text{in} = 0.025\text{ft}^3/\text{sec}$										
	C	10:15	7.91	22 Sec/L	$1/8\text{in} = 0.025\text{ft}^3/\text{sec}$	$1/8\text{in} = 0.025\text{ft}^3/\text{sec}$										
	D	10:30	7.92	22 Sec/L	$0\text{in} = 0\text{ft}^3/\text{sec}$ - flow stopped	$1/8\text{in} = 0.025\text{ft}^3/\text{sec}$										
		(time)	(pH)	(flow)	$0\text{in} = 0\text{ft}^3/\text{sec}$ - no flow	$1/8\text{in} = 0.025\text{ft}^3/\text{sec}$										
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):																
01/14/14	Margie Tract	01/14/14	Michelle Wong	01/14/14	Michelle Wong	01/14/14	AFCOM	Company								
Date	Name		Signature													
DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy																

Destination Laboratory Denver

Destination Laboratory PM (if known)

Drop Shipment Receipt Checklist

Client Name: AECOM/Work Management Date/ Time Received: 1/14/14 11:35Received By: Nina KimMatrices: Aq.Carrier: Hand

Airbill# :

Shipping container visible in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present
Chain of Custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of Custody Signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Carrier opened at TestAmerica Houston?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers matched to PCX at TestAmerica Houston?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Any sample containers obviously broken, damaged upon receipt?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	Type: _____
Sanitize vials/contaminants present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample vials present? (Please account for carrier, sample containers?)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of Custody seals intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All test VOA Vials have zero Headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials present: _____
Water + pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Checked: <input checked="" type="checkbox"/>
	pH Adjusted? Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	Final pH: _____
Engorged MI-VOC - 50.35 Vials Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample Filtration Needed	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Filtered in Field: _____
Perf. QSM - CLAPP P. (not checked)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Type: _____
	Temperature Blank Present? Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	
	Sample Container Temperature: <u>22.1 °C</u>		
Samples drop shipped on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Type: <u>Wet</u>
Date of drop shipment:	<u>1/14/14</u>		

Comments/ Sampling Handling Notes:

Aliquot for Cr(VI) by 218.0 will be shipped once preparation is complete.
ETA 1/17/14.

Chain of Custody Record

Sampler ID _____
Temperature on Receipt _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4-124-280 (0508)

Client Waste Management / AECOM	Project Manager Mark Hofferbert	Date 01/14/14	Chain of Custody Number 168561
Address 1001 Bishop Street, Suite 1600	Telephone Number (Area Code)/Fax Number 808-356-5317 E: 808-523-9450	Lab Number	Page _____ of _____
City Honolulu	State HI	Site Contact Justin Loring	Analysis (Attach list if more space is needed)
Zip Code 96813	Carrier/Mailbox Number WESL Stern Water 10281031.02	Lab Contact Betsy Sara	Special Instructions/ Conditions of Receipt

(Containers for each sample may be combined on one line)
Contract/Purchase Order/Quote No.
10281031.02

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix	Containers & Preservatives
D301-W	1/14/14	9:45	X	H2O
				NaOH
				ZnSO4
				LiPore,
				Soil,
				Sed.
				Acetone
				HNO3
				HCl
				NaOH
				ZnAc2
				TKN
				218.9 CVI
				MS2010 800
				MS2011 Nitrates
				* Requiring, benzoic acid, pentachlorophenol, p-creosol, phenol
				* As, Cd, Fe, Pb, Hg, Se, As, Tm

Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable	Skin Irritant <input checked="" type="checkbox"/>	Poison B <input type="checkbox"/>	Unknown <input type="checkbox"/>	21 Days <input type="checkbox"/>	Other <input type="checkbox"/>	Sample Disposal <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)
Turn Around Time Required <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input checked="" type="checkbox"/> 14 Days	QC Requirements (Specify)					
1. Relinquished By Mark W. Wren	Date 1/14/14	Time 11:35	1. Received By Minakim Y.	Date 1/14/14	Time 11:14	Cooler Left Ice <input checked="" type="checkbox"/> Ice Intact <input type="checkbox"/> Date 1/14/14
2. Relinquished By Kristie Reilly D.P.	Date 1/14/14	Time 12:43	2. Received By Kristie	Date 1/16/14	Time 9:20	
3. Relinquished By	Date	Time	3. Received By	Date	Time	
Comments						

FIELD INFORMATION FORM



Site Name:

WGSL Stormwater

Site No.:

DB01-H Sample
Line DB01-W
Sample ID**This Waste Management Field Information Form Is Required**

This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

2

PURGE INFO	DB01-H-W								
PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)		ACTUAL VOL PURGED (Gallons)		WELL VOL PURGED		
Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.									
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment... Dedicated: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N			Filter Device: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	0.45 μ	or <input type="checkbox"/> μ (circle or fill in)			
Purging Device	A-Submersible Pump	D-Bailer		A-In-line Disposable	C-Vacuum				
Sampling Device	B-Peristaltic Pump	E-Piston Pump		B-Pressure	X-Other				
X-Other:	C-QED Bladder Pump	F-Dipper/Bottle		A-Teflon	C-PVC	X-Other:			
			Sample Tube Type:	B-Stainless Steel	D-Polypropylene				
WELL DATA	Well Elevation (at TOC)	Depth to Water (DTW) (from TOC)		Groundwater Elevation (site datum, from TOC)					
	(ft/msl)	(ft)		(ft)					
	Total Well Depth (from TOC)	Stick Up (from ground elevation)		Casing ID	(in)	Casing Material			
	(ft)	(ft)							
Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.									
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
	.....	.....	1 st	.....	.....	.....	.....	.....	.....
	.....	.....	2 nd	.....	.....	.....	.....	.....	.....
	.....	.....	3 rd	.....	.....	.....	.....	.....	.....
	.....	.....	4 th	.....	.....	.....	.....	.....	.....

Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize	
Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.									
FIELD DATA	SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units	
	01/14/14	7.81							
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).									
Sample Appearance:		Slightly turbid		Odor:	none	Color:	light tan	Other:	bugs swimming
Weather Conditions (required daily, or as conditions change):				Direction/Speed:	LS mph SW	Outlook:	partly cloudy	precipitation:	<input checked="" type="checkbox"/> Y or <input type="checkbox"/> N
Specific Comments (including purge/well volume calculations if required):									
FIELD COMMENTS	A	9:45	7.81	20 sec/L	East		West		
	B	10:00	7.85	22 sec/L	$\frac{1}{8} \text{ in} = 0.025 \text{ ft}^3/\text{sec}$	$\frac{1}{8} \text{ in} = 0.025 \text{ ft}^3/\text{sec}$			
	C	10:15	7.91	22 sec/L	$\frac{1}{8} \text{ in} = 0.025 \text{ ft}^3/\text{sec}$	$\frac{1}{8} \text{ in} = 0.025 \text{ ft}^3/\text{sec}$			
	D	10:30	7.92	22 sec/L	$0 \text{ in} = 0 \text{ ft}^3/\text{sec}$ - flow stopped	$\frac{1}{8} \text{ in} = 0.025 \text{ ft}^3/\text{sec}$			
		(time)	(pH)	(flow)	$0 \text{ in} = 0 \text{ ft}^3/\text{sec}$ - no flow	$\frac{1}{8} \text{ in} = 0.025 \text{ ft}^3/\text{sec}$			
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):									
Date	Margie Trach	Signature	ATCOM						
1/14/14	Michelle Wong	Signature	ATCOM						
Name		Company							
DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy					01/14/2014 TAL-6029WM (0108)				

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-51248-2

Login Number: 51248

List Source: TestAmerica Denver

List Number: 1

Creator: Knauf, James R

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	FIELD LEFT BLANK
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-51248-2

Login Number: 51248

List Source: TestAmerica Irvine

List Number: 1

List Creation: 01/21/14 09:40 AM

Creator: Freitag, Kevin R

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	